



December 2005



Conservation Education

State and Private Forestry

FY 2005 Accomplishments

"Connecting people to the land through education"

Our Mission

To provide natural resource education and services through formal and non-formal education venues to pre-kindergarten through 12th grade students and their educators so they can build awareness, knowledge and skills to sustain a healthy environment.

Program Highlights

- 43% of those reached were students.
- 2% of those reached were educators.
- 8% of those reached were from urban areas.

The most common conservation education topic areas were wildlife, outdoor recreation, and ecosystem management, followed closely by forest health, ecology, and flora.

Introduction

The USDA Forest Service (FS) *Conservation Education (CE)* program connects people to the land and enhances environmental literacy by 1) delivering conservation education programs and materials in partnership with other federal and state agencies and numerous not-for-profit education and natural resource organizations, 2) offering outstanding opportunities for place-based learning on National Forest System lands and experimental forests, and 3) utilizing the expertise and efforts of the agency's research and development programs and field resource managers. We focus our efforts on pre-kindergarten through 12th grade students and their educators, both formal and non-formal.



Students from Ketchikan, Alaska examine life from the rainforest.

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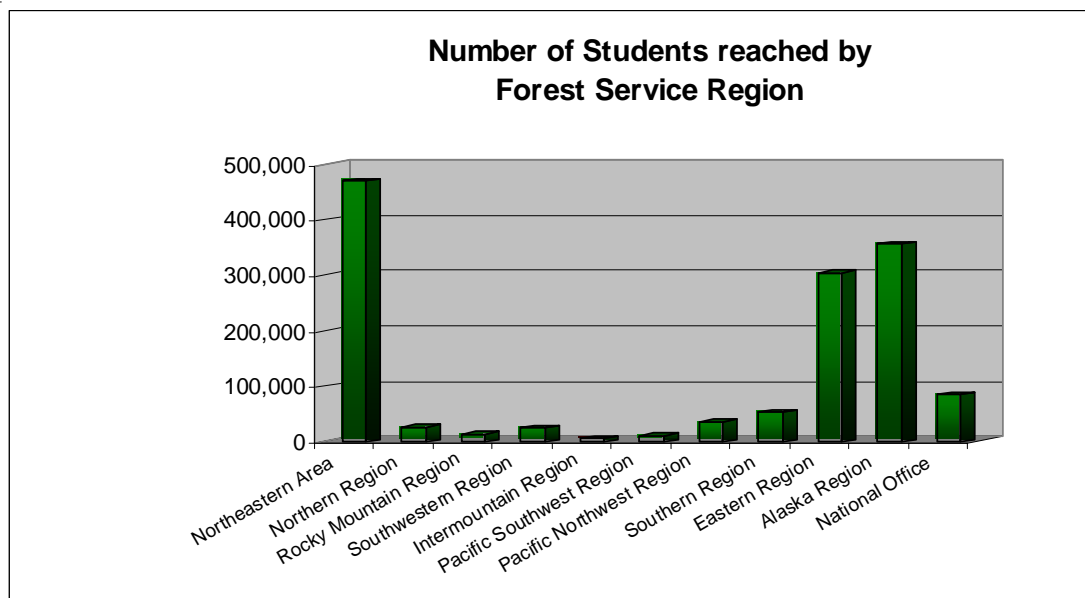
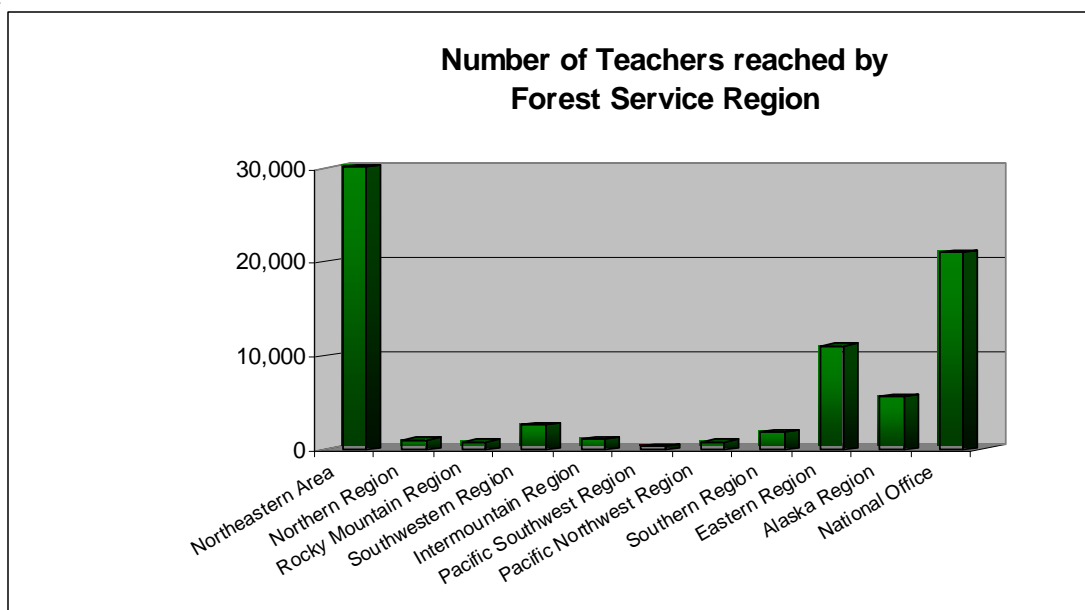
Background

This annual report highlights some of our accomplishments in FY 2005 around the country. It is a "snapshot" to show the breadth and scope of our efforts, the impacts we are having in promoting the sustainability of the nation's natural resources, and the passion the Conservation Education staff at all levels of the agency bring to their jobs each day.

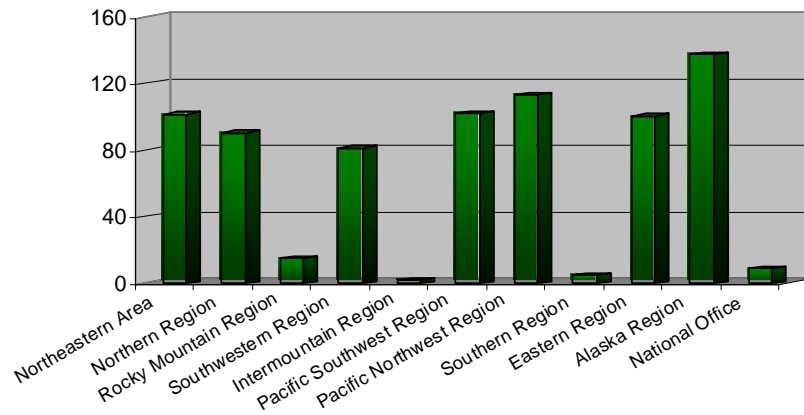
Conservation education by the numbers

In FY 2005, over 3.1 million people were reached with conservation education programs and materials. Partners played a key role in this effort, with over 600 partnerships nationwide.

The bar graphs below show the estimated number of students and teachers reached by Forest Service Region, along with the estimated number of conservation education partnerships by each Region.



Number of Conservation Education Partnerships by Forest Service Region



Reaching inner city youth in Portland, Oregon

The Inner City Youth Institute (ICYI) provides natural resource education programming to Portland, Oregon-area youth, targeting minority youth and underserved communities. The Institute is a collaborative partnership between the Forest Service (Region 6 and the Pacific Northwest Research Station), the Bureau of Land Management, and Oregon State University.

During 2005 ICYI hosted Natural Resource Clubs at participating middle and high schools. These clubs engage youth in school science activities and exploration of natural resource areas. During the summer, ICYI supported a natural resource camp for high school students hosted by Oregon State University. This one week camp exposed students to an intensive natural resource education and college environment. For those students approaching their senior year, additional summer activities included summer work assignments and job shadows at natural resource agencies. 120 students participated in the clubs and camp.



Natural resource campers show off their paddling skills.

In 2005, ICYI was awarded the Secretary of Interior's Annual Diversity Award for Partnership Achievement.

Teaching teachers about the environment

Providing teachers with information and tools to educate students about the natural environment is one of the most efficient and effective ways to reach students, as each teacher trained means hundreds of students will be reached. Across the Forest Service there are many teacher training success stories. Here are a few.

The New Hampshire Education and Environment Team (NHEET) - NHEET is a multi-organizational partnership of the Forest Service Northeastern Area and the White Mountain National Forest. The partnership began hosting week-long teacher's institutes three years ago and in 2005, 30 teachers from grades 2-8 attended.

The institute gives teachers solid content understanding of New Hampshire's natural environment, along with the curriculum tools to take this content to their students. During the week teachers interact with foresters, wildlife biologists, geologists and soil scientists and experienced curriculum activities. They are taught how to use their schoolyard as a classroom and how they can incorporate environmental science into their curriculum. By the end of the week, each teacher develops a unit they will use with their students.

Forestry Institute for Teachers (California)-The Forestry Institute for Teachers (FIT, www.forestryinstitute.org) was developed in 1993 and is a collaborative Forest Service effort with various national, state, and local public agencies and private organizations.

FIT is a six day, hands-on, intensive field workshop that provides K-12th grade teachers with information and educational tools to develop and teach a balanced environmental education curriculum on forest ecology and natural resource



Teachers planning how to use their schoolyard for outdoor learning.

management. Teachers are then able to provide their students the skills to recognize, analyze, and make sound decisions regarding environmental issues.

Practicing resource professionals and scientists from government agencies, companies, and universities volunteer their time to present college-level natural resource material.

Throughout the week, teachers receive instruction from certificated environmental education specialists in the development of their curriculum, using existing curriculum materials. These curricula are implemented the following year and teachers report back on what they did and how it worked.

Begun in 1993, to date 1300 teachers have participated in FIT, the majority coming from urban schools in southern California and San Francisco Bay Area.

FIT has received the 1997 Gene Cartledge Environmental Education Award from The Conservation Fund, and the 1998 Forest Service Chief's Conservation Education Outstanding Achievement Award.

To date 1,300 teachers have participated in the Forestry Institute for Teachers

Cradle of Forestry and the Pisgah Forestry Institute (North Carolina) - Over 200 formal and non-formal educators and resource specialists participated for a total of 19 workshop days of professional development offered at the Cradle of Forestry on the Pisgah National Forest. The series included 12 workshops led in whole or part by Cradle staff and other Forest Service employees. All of the workshops include materials and/or curricula with multiple lesson plans and/or student activities.

The one to two day workshops covered topics of importance to the Forest Service, including invasive species, recreation, ecosystem health, air resources, wildlife, and wilderness. It is conservatively estimated that if the participants, most of whom are K-12 teachers, use the materials with one class during the following year, 13,250 students will be taught at least one of the topics listed. All of the workshops were offered in partnership with a number of public and private organizations.



Teachers practicing leave no trace camping at the Cradle of Forestry.

During the year the Pisgah Forestry Institute (PFI) hosted three 10 hour short courses and seven workshops varying from three to six days long. PFI hosted over 170 educators throughout these workshops, each who received continuing education credit as well as credit in the North Carolina Environmental Educator's Certification Program. Several participants also took Earth/Environmental Science for college credit through Brevard College.

Over 200 educators and resource specialists participated in Cradle of Forestry workshops

Hands on with 2,000 students at the Clear Lake Education Center in Michigan

The Clear Lake Education Center, located on the Hiawatha National Forest in northern Michigan, is a one-of-a-kind model of a strong partnership providing hands-on education opportunities for youth Kindergarten through 12 grade. The Center is a partnership between the Forest Service and two school districts. In 2005, over 2,000 students participated in day programs and three day residential Outdoor Education camps. There are 14 different interdisciplinary classes offered at the Center, all correlated to Michigan education standards.

With all the time students spend in classrooms and behind screens, the Center connects them to their natural world and global natural resource issues. In the future, the Center will continue working with the Forest Service's Urban Connections program so more urban youth can connect with the forest environment.

The Center was recently awarded one of nine Michigan's Best Awards by the Michigan Association of School Boards. The Center received the award for innovativeness and impact on student achievement through outdoor education programs.



Student teamwork at the Clear Lake Education Center.

**Over 2,000 students
participated in Clear Lake
Education Center programs**

America's rain forests—A distance learning adventure for 350,000 children

When people think of “rain forests,” they often conjure images of howling monkeys, slinking jaguars, sweltering heat, and exotic lands. They rarely imagine the United States harbors some of the most significant rain forests in the world. Yet, within the National Forest System, two premier rain forest ecosystems—the tropical rain forest of the Caribbean NF, and temperate rain forest of the Olympic, Tongass, Chugach NFs—are managed for the public trust.

The innovative project, “*America’s Rain Forests*” brought these remarkable rain forests into the classrooms of children across the Western Hemisphere. “*America’s Rain Forests*” was a web-based, distance learning project that used internet and satellite broadcast technology to reach a broad and diverse audience. Targeted for Grades 5-8, the free program was offered in both English and Spanish.

The program’s highlight was a 90-minute, live satellite broadcast from Puerto Rico and Alaska. On October 14, 2005 scientists and land managers led students on a virtual tour of the forests. During the broadcast, and in the intervening weeks, over 350,000 children participated in the program.

“*America’s Rain Forests*” was a partnership effort supported by a broad array of Forest Service, state agency and private partners. The lead private partner for the project was the Prince William Network, an award-winning educational institution in Virginia. Visit the program Web site at <http://rainforests.pwnet.org> to experience America’s rain forests!



Students from Ketchikan, Alaska examine life from the rainforest.

**Over 350,000 children
participated in the America's Rain
Forests program**

Bringing Forest Service science to students

The *Natural Inquirer* (www.naturalinquirer.usda.gov) is a periodic science education journal written for middle school students and educators. Each edition contains seven scientific articles written from published Forest Service science. The journal integrates science, mathematics, geography, language arts, and minds-on as well as hands-on learning by introducing the scientific process, as well as environmental science content. Past topics have included wildland fire, tropical forests, Rocky Mountain ecosystems, and national assessments of water, wildlife, environmental health, and freshwater aquatic resources. Over 600,000 journals have been distributed to students across the United States.

In FY 2005 over 70,000 copies of the Urban Forestry issue were distributed, reaching over 100,000 teachers and students. In FY06 upcoming editions will introduce wilderness benefits and invasive species.

The Natural Inquirer reached over 100,000 teachers and students



Schoolyard wildlife gardens in California reach 800 students

The Wildlife Songbird Garden/Greenhouse Project is a multi partner project that provides schools throughout Siskiyou County, California with on-campus wildlife habitat gardens. Incorporating hands-on experience with a gardening/science based curriculum, students and teachers learn to propagate native plants and riparian vegetation, improve habitat for local songbirds, and learn the traditional uses of plants important to local Native American tribes.

The Scott River Ranger District of the Klamath National Forest has led the effort to develop gardens at ten Siskiyou County schools. These garden/greenhouses are managed by approximately 35 grade K-12 classrooms and reach 800 students annually.

In fiscal year 2004, this project was recognized as a featured Conservation Education Project by the Pacific Southwest Region of the Forest Service. It has also been featured in numerous local press releases, highlighting the unique partnership between the Klamath National Forest and local schools.

“These gardens are huge resource for my students. They are not only actively involved in the garden design but once in place, students get hands-on experience in creating wildlife habitat, greenhouse gardening and composting,” stated Gary Warner, science teacher at Etna Elementary School.

**35 grade K-12 classrooms
experienced hands-on gardening/
science based curriculum in California**

Family camping with conservation education in California

Completing its fourth successful year, the Los Padres National Forest FamCamp (Family Camping) conservation education program provides forest-based experiences through one night campouts and community education activities for 425 young people and their parents in California. While open to all community members, emphasis is placed on recruiting minority and disabled students and their families for the program. Forest Service interpretive specialists lead the FamCamps. This year, 19 camp trips to the forest, and 22 conservation education programs at schools and other community locations were offered. Partnerships with community organizations are central to the success of the FamCamp program.



Happy FamCampers.

**425 young people and their
parents experienced forest-
based education in California**

Salmon and science in Washington

Nestled in the heart of the Washington Cascades, the Wenatchee River Salmon Festival (www.salmonfest.org) celebrated its 15th anniversary with high quality natural resource education in the beautiful outdoor setting of Leavenworth, Washington. Highlighting the annual return of the Chinook salmon as a catalyzing event, this free four-day festival focuses on connecting people with nature, the multiple and diverse ways in which water, wildlife and people are interrelated, and the importance of personal involvement in sustaining healthy watersheds and healthy forests.

In a dynamic, fun, and educational atmosphere, the festival caters to organized school groups on Thursday and Friday, with hands-on activities especially geared to third and fourth graders. Conservation education is the foundation of the festival. A comprehensive bilingual curriculum guides teachers through pre and post festival activities to demonstrate and reinforce students' understanding of festival activities related to salmon and other natural resources. Two days of school field trips are transformed into several weeks of activities that are melded into the classroom. Annually, 83 teachers from 10 school districts bring 2,000 school students, of which 38 percent are Hispanic, to this special event.

The weekend days are dedicated to the general public, with an emphasis on inter-generational learning through family participation with engaging "edu-tainment" activities for all ages.

Natural resource specialists from a diverse range of 55 partners present 25 significant environmental and conservation activities to the students and general public, reaching 10,000 people per year, and over 140,000 families and 87,000 students and teachers through its 15 years of operation.



Students learning about aquatic macroinvertebrates.

In Wenatchee, Washington 2,000 students learned ways in which water, wildlife and people are interrelated

ver 200 children get a Head Start with Woodsy Owl

To introduce pre-schoolers to the environment, the Forest Service is partnering with the Department of Health and Human Services to incorporate Woodsy Owl and his message into Head Start curricula and programs for children and their families. A pilot program was established in 2005 in four Head Start classrooms located in Washington, DC, Kentucky, Pennsylvania and North Carolina. More than 200 children and their families were reached through activities using Woodsy and our signature product for the pilot, the Woodsy Owl ABC's. In 2006 a minimum of five new sites will be added, while continuing the pilot at the first four sites.



Getting a Head Start in Kentucky through Woodsy Owl's ABC book.

and on the Land field classrooms

Hands on the Land (HOL, www.handsontheland.org), a collaboration of five federal agencies, a non-profit foundation, schools, and other private sector partners, provides a national network of field classrooms to enhance kindergarten through high school student-learning. Through the HOL network of field classrooms, federal agencies are providing a diverse array of hands-on learning opportunities for teachers and students. Forest Service outdoor classroom sites are located in North Carolina, Kentucky, Michigan, Colorado, Utah, and Alaska.

Since the program began in 1999, agency employees have been working in partnership with local schools and other community members to develop a broad range of education programs and resources. HOL recently completed a 5-year strategy to chart their future course and areas of expansion.



Children learning about turtles at Land Between the Lakes.

Talkin' turkey with youth in Modoc County, California

Modoc County, California youth and their families enjoyed learning archery skills, trying different wild turkey calls, experiencing “laser” hunting, learning about safety in the woods and Leave No Trace horse packing, learning about hunting ethics and wilderness ethics, riding on a mule drawn wagon, and other activities during the first locally sponsored JAKES/Wheelin’ Sportsmen event held July 9, 2005. “My kids haven’t stopped calling turkeys since last Saturday”, stated one of the mother’s.

JAKES is the name of the National Wild Turkey Federation’s youth conservation education program: Juniors Acquiring Knowledge, Ethics and Sportsmanship. Wheelin’ Sportsmen is a branch of the Turkey Federation that makes outdoor activities accessible for people with disabilities.

The event was held at the new Pepperdine Equestrian Facility on the Modoc National Forest. At the event the youth visited 10 different stations where they learned skills and experienced wild turkey “culture”.



Talkin' turkey on the Modoc National Forest.

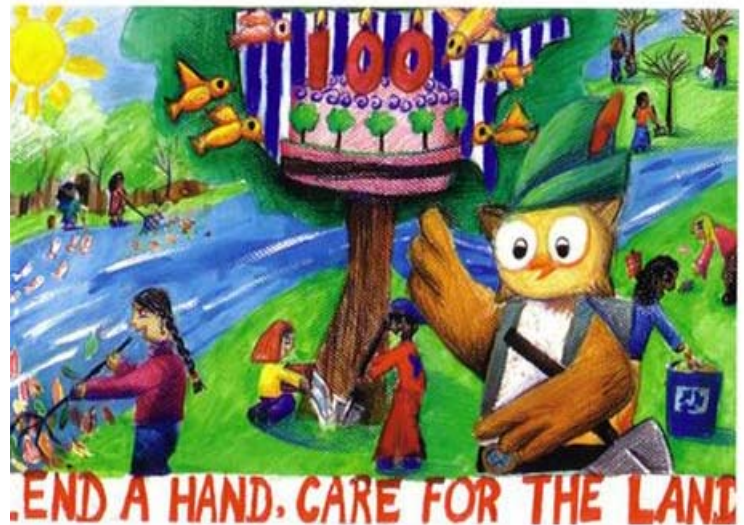
National symbols and icons

The national Symbols program is a key component of the Conservation Education program, supporting Woodsy Owl as America's icon for the conservation of the environment and Smokey Bear to promote our national fire prevention message. Through the national Symbols program, educational and promotional products are continually being designed, developed, and distributed, directly reaching over 2400 public and private sector customers in FY 2005.



Metro DC area - The national Symbols program also supports local DC metro area and Forest Service special events where the icons presence is requested. With the assistance and support from many volunteers, the national Symbols program facilitated the presence of the icons in 20 DC metro area events during FY 2005.

National Garden Clubs, Inc. - For more than 40 years National Garden Clubs, Inc. has partnered with the Forest Service, promoting Smokey Bear fire prevention and Woodsy Owl conservation of the environment messages among elementary school children through their annual poster contest. Each year more than 10,000 students (from first through fifth grade) nationwide participate in the contest. In 2005 the National Prize winner was Chanjuan Ma from Fernbrook Elementary School, Randolph, New Jersey.



The 2005 National Garden Clubs, Inc. National Prize winner.

Displaying invasive species in Arizona

The Boyce Thompson Arboretum outside of Phoenix has provided the Tonto National Forest a wonderful opportunity to reach Arizonans with an educational display about invasive species.

With the help of numerous partners an exhibit was developed that fills an entire room in the Smith Building, a historic rock building flanked by greenhouses that is part of the original botanical garden begun in the 1920s. The exhibit features topics such as “What is an invasive plant?”, “Why should you be concerned about invasive plants?”, “What is the Tonto National Forest doing about invasive plants?”, and “What can you do about invasive plants?”

The display includes a special area for children: a world map on the wall with lines radiating to Velcro tabs where children (and adults, too) can affix the appropriate photo of an invasive plant to show where it originated. Answers are provided on the back of each plant photo card.

Arboretum staff estimates 60,000 to 90,000 people will visit the garden during the high-visitation season the exhibit will be showing.

It's fun, it's wet, it's educational in Arizona

What’s fun, wet, and has 1,000 4th graders learning? The First Annual Flagstaff Water Festival! Coordinated by the City of Flagstaff, Arizona water conservation staff and Arizona Project WET, water education was provided to 1,000 4th graders on a beautiful fall day in September, 2005.

Professionals involved in water quality, water production, water conservation, and watershed management, assisted by education students from Northern Arizona University, delivered hands-on demonstrations, asked and answered questions, and facilitated students’ journeys through the water cycle. Conservation educators from the Coconino and Kaibab National Forests in northern Arizona teamed up with staff from the city, county and state agencies, local organizations, in addition to National Park Service and National Weather Service staff. Even Smokey and Woodsy made an appearance to reinforce the notion to “Lend a hand, Care for the Land” so that healthy forests are healthy watersheds.

**In Flagstaff, 1,000 4th graders learned
that healthy forests are healthy
watersheds**

A New Century of Conservation Education

Conservation Education was a hot topic in FY 2005, and the Conservation Education program benefited from this interest. Participants at the Forest Service's Centennial Congress in January 2005 sent a strong message to agency leadership to strengthen the emphasis on conservation education within the agency. This was followed by a Centennial Conservation Education meeting at the Cradle of Forestry sponsored by Congressman Charles Taylor in August 2005, and the National Conservation Learning Summit sponsored by the Brandwein Foundation in November 2005. An important outcome of these events is the development of a national Conservation Education strategic plan, currently being drafted, which will strengthen the focus of the program and improve our service to the American public.

A New Century of Service

In 2005, the Forest Service commemorated its centennial. New Century of Service has been the agency's effort to honor 100 years and beyond of caring for the land and serving people.

Numerous national, regional, and local activities provided a chance to reflect on 100 years of accomplishments and lessons learned. These accomplishments can be found on the Web site www.fs.fed.us/newcentury/.

The Smithsonian Institution honored the Forest Service's centennial year by inviting the agency to participate in the 39th annual Folklife Festival on the National Mall in July 2005. More than a million people visited the 10-day festival. Over 100 Forest Service participants told the story of the Forest Service, its culture, history, and contributions to the country. Many partners supported the festival, including the National Forest Foundation and National Endowment for the Arts, and others.



Learning to be a sawyer at the 2005 Smithsonian Folklife Festival.



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